Introducing IO-Link: Elevate Your Automation Experience with Unitronics

We are thrilled to share our latest product: **IO-Link**, a solution that promises to change your automation experience.
In this document, we will walk you through what IO-Link is, its versatile applications, and how Unitronics is leading the way in its integration.

The Power of IO-Link: What is it?

At its core, IO-Link is an internationally standardized IO technology that enables fast, seamless communication between sensors, actuators, and controllers. This two-way communication empowers you with unprecedented control, flexibility, and efficiency in your automation processes.
With IO-Link, you are not just managing devices, you are orchestrating a symphony of precision.
This point-to-point communication interface is specified in IEC 61131-9—and is rapidly growing in popularity.

Here's why you need it:

1. Real-Time Intelligence: IO-Link enables two-way communication between sensors, actuators, and controllers, providing real-time feedback and allowing for dynamic adjustments on the fly.
2. Effortless Device Parameterization: Say goodbye to manual configurations. IO-Link with Unitronics automates the setup process, reducing downtime and ensuring optimal device performance.
3. Simplified Troubleshooting: Detailed diagnostics at your fingertips. Pinpoint issues with ease, speeding up maintenance and minimizing disruptions.
4. Enhanced Device Interoperability: IO-Link standardizes communication, allowing IO-Link sensors and actuators from different manufacturers to work together, seamlessly. The popularity of IO-Link means that there is a very broad range of available devices— giving you the freedom to pick and choose the best components for your application.
5. Reduced Wiring Complexity: Efficient cabling and the ability to connect multiple devices to a single port significantly simplifies your installation process and reduces wiring costs.

What applications can benefit from IO-Link with Unitronics?

Any application can benefit from the simple architecture, easy setup, and straight-forward diagnostics that IO-Link provides—and with UniLogic, implementing IO-Links bi-directional data transfer between controller, sensors, and actuators is a matter of simple drag & drop configuration.

Why Unitronics?
Seamless Integration With a Single Click.

With Unitronics, we truly 'Keep it Simple'.
All UniStream controllers support IO-Link via the EtherNet/IP communication protocol. Programming is easy: drag & drop configuration, assign IP addresses, and you are done—no coding needed. Communications are completely transparent and seamless.

Offering

These are the Unitronics' IO-Link system components:

A. IO-Link Masters, IP67:

Unitronics master modules can:

- be connected to IO-Link sensors and actuators that can be configured by importing the device's IODD (IO Device Description) that is supplied by the device manufacturer.
- be connected to a Unitronics' IO-Link digital hub.
- have individual ports configured as simple digital IO points.

Two classes of master modules are available; Class A and Class B.
Class A comprises standard IO-link ports, while **Class B** ports offer an additional power supply pin, to support devices that require a higher current to operate.
Unitronics masters' modules are available in different models. Models differ both in the number of ports and the Class of ports offered.

B. Accessories

- **IO-Link Digital Hubs, IP67**

Unitronics I/O digital hubs offer different numbers of I/O points.
Each hub port can be set either as a digital input, output, or left unused. In certain hubs, a single port can be wired to support two digital I/O devices.

- **Splitters**

If a hub port supports two I/O points, a splitter enables that port to be easily connected to two digital I/O devices.

- **Unshielded 4-wire or 5-wire standard cables**

Note that the maximum distance allowed between a Master and its connected IO-Link devices is 20 meters.
All UniStream controllers support IO-Link. The number of supported masters per controller is in accordance with the model, as follows:

- B10 - 8 masters
- B5 - 8 masters
- B3 - 1 master